



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/516,964

07/27/2005

Richard Lehman

P26,128 A USA

8571

29880

7590

10/08/2009

FOX ROTHSCHILD LLP  
PRINCETON PIKE CORPORATE CENTER  
2000 Market Street  
Tenth Floor  
Philadelphia, PA 19103

EXAMINER

PEPITONE, MICHAEL F

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

10/08/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/516,964	<b>Applicant(s)</b> LEHMAN ET AL.	
	<b>Examiner</b> MICHAEL PEPITONE	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12, 21 and 23 is/are pending in the application.
- 4a) Of the above claim(s) 21 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Election/Restrictions*

During a telephone conversation with Peter Butch on 10/29/08 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-12. Applicant is reminded that affirmation of this election must be made by applicant in replying to this Office action. Claims 21 and 23 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Eguiburu, J. L.; Iruin, J. J.; Fernandez-Berridi, M. J.; San Romám, J. *Polymer* **1998**, 39, 6891-6897.

Regarding claims 1-8: Eguiburu *et al.* teaches blends of poly(L-lactide) {PLLA} and poly(methyl methacrylate) {PMMA} (PLLA/PMMA 10/90 to 90/10; Table 1 {ex. 50/50}) for biodegradable medical implants (pg. 6891, col. I. ln. 1-8), wherein the blends exhibited a multiphase structure {phase separated}, and the  $T_g$  of the blends are different from the homopolymers, indicating the presence of each of the components in the amorphous phase of the other (pg. 6894, col. II. ln. 8-22; Table 1).

Art Unit: 1796

Regarding claim 12: Eguiburu *et al.* teaches blends of poly(L-lactide) {PLLA} and poly(methyl methacrylate) {PMMA} (PLLA/PMMA 10/90 to 90/10; Table 1), and as the implant degrades, the resulting structure would become porous {foamed}.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eguiburu, J. L.; Iruin, J. J.; Fernandez-Berridi, M. J.; San Romám, J. *Polymer* **1998**, 39, 6891-6897, as applied to claim 1 above, and further in view of Vaidyanathan *et al.* (US 2002/0143403).

Regarding claims 9-11: Eguiburu *et al.* teaches the basic claimed polymeric blend [as applied to claim 1 above].

Eguiburu *et al.* does not teach substances which promote bone or tissue growth or pharmaceutical substances. However, Vaidyanathan *et al.* teaches polylactic acid/PMMA composites for medical implants (§ 11, 13, 36, 40-41, 58, 61-63) comprising tricalcium

Art Unit: 1796

phosphate [instant claims 9-10] (§ 41, 58), and additives for enhancing bone and tissue regrowth such as bone morphogenic protein (BMP), transforming growth factor (TGF $\beta$ ), and hydroxyapatite [instant claims 9-11] (§42). Eguiburu *et al.* and Vaidyanathan *et al.* are analogous art because they are concerned with a similar technical difficulty, namely the preparation of polylactic acid/PMMA composites for medical implants. At the time of invention a person of ordinary skill in the art would have found it obvious to have combined additives for enhancing bone and tissue regrowth, as taught by Vaidyanathan *et al.* in the invention of Maier *et al.*, and would have been motivated to do so since Vaidyanathan *et al.* suggests that such additives enhance bone and tissue regrowth, as well as improve the biocompatibility of the implant structure with the host body (§ 42).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Vaidyanathan *et al.* (US 2002/0143403) was relied on as secondary reference for disclosing polylactic acid/PMMA composites for medical implants (§ 11, 13, 36, 40-41, 58, 61-63) comprising tricalcium phosphate (§ 41, 58), and additives for enhancing bone and tissue regrowth such as bone morphogenic protein (BMP), transforming growth factor (TGF $\beta$ ), and hydroxyapatite (§42).

The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. See attached form PTO-892.

Art Unit: 1796

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PEPITONE whose telephone number is (571)270-3299. The examiner can normally be reached on M-F, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MFP  
5-October-09

/James J. Seidleck/  
Supervisory Patent Examiner, Art Unit  
1796